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# The Politics of Redistribution in Local Governments: The Effect of Gender Representation on Welfare Spending in California Counties

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# The politics of redistribution in local governments: the effect of gender representation on welfare spending in California counties

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**Abstract:** This research explores the impact of gender representation at the state and local levels on redistributive choices. This research also examines whether female officeholders moderate the impact of the local economy and institution on welfare spending. Hypotheses are tested across 58 counties in California over ten years, between 2001 and 2010. According to the fixed effect models, women in state legislature had a positive effect on local welfare spending, while women on county boards had no significant effect. However, a positive moderating effect of women on county boards during economic hardship was found. Three categories of control variables include institutional factors, such as the introduction of Proposition 1A and county home rule; political factors, such as the political preference of each county's residents and strength of non-profit organisations; and socio-economic factors, such as intergovernmental revenue, unemployment rate and demographics. Counties with more intergovernmental revenue and supporters of Democratic presidential candidates are likely to spend more on welfare services.

**Key words:** California, economy, gender representation, intergovernmental revenue, political ideology, social welfare

## Introduction

Recurring financial crises in American local governments bring attention to the priority issues in financial resource allocation. The choices of local governments to spend their money among different policy areas are influenced by various factors. The importance and proportion of local welfare spending has been increasing over the past few decades (e.g. Witco and Newmark 2009). Redistributive services, such as welfare, health and

public safety, are traditionally provided by counties as political subdivisions of state governments (Schneider and Park 1989; Berman 1993; Choi et al. 2010; Farmer 2011). Most of these redistributive services are mandated and take up a large share of county spending (Schneider and Park 1989; Park 1996). Among the spending categories of California counties, public protection and public assistance take up more than 25 per cent of total county expenditures.

This paper examines factors that affect a county's preferences on welfare spending in California, focusing on the gender representation of county boards of supervisors and the state legislature. Social welfare is viewed as a gendered policy domain, as it is particularly related to the interests of minorities including women (Ricucci and Meyers 2004; Wilkins and Keiser 2006). Despite a relatively large proportion of women at the local level, the role of female local officials and its impact on the politics of financial choices is largely underexplored (Garber and Turner 1995; MacManus 1996; Fox and Schuhmann 2000; Alozie and McNamara 2010). We seek to explore this and also attempt to test whether women officeholders moderate the impact of the local economy and institutions on welfare spending, because social welfare is not only related to gender, but is also politically vulnerable during an economic recession.

California counties constitute an excellent testing ground for the impact of various factors including gender representation on welfare spending. First, local governments in California have been through notable institutional changes under continuing fiscal constraints and the growing service demands of an ever-increasing population in the state. Notably, California recently suffered from a bubble-burst caused by the stock market decline in early 2000 (Musso et al. 2006). In response, Governor Schwarzenegger proposed several solutions, including significant expenditure cuts for schools, health and human services, local assistance and state employee compensation (Spilberg and Alexander 2003).<sup>1</sup>

Second, based on its 1879 constitution, California has historically given wide autonomy to local governments in structural, programmatic and fiscal areas (Sokolow and Detwiler 2001, 59). In 1911, "California was the first state to amend its constitution to permit home rule for counties" (Menzel 1996, 5). Local governments with home rule charter usually have discretionary power in choosing the forms of government, functions and services they provide and in dealing with managerial and fiscal issues. Although Proposition 13 in 1978 has limited local autonomy, several counteractive institutional measures have been taken since then.

<sup>1</sup> "Schwarzenegger's Solution to California's Budget Woes: End Welfare" By Agence France-Presse, Saturday, 15 May 2010.

Third, there exists a considerable difference in fiscal, political and administrative capacities among counties (Berman 1993). In particular, California counties are large and diverse enough to examine redistributive efforts within counties in relation to institutional, political and economic factors. For example, Alpine County has the smallest county population at little more than 1,000 persons, while Los Angeles County has a population of nearly ten million, which is more than some states in the United States have in total, including Georgia, Indiana, Washington and Massachusetts. In addition, there are significant variations in welfare spending across counties. In terms of the size of the total welfare budget in 2010, Los Angeles County spends more than 5,000 times what Alpine County does.

One of the prominent issues in county research is how leadership affects policy choices at the county level (Menzel 1996; Svava 1996; Benton 2005). A substantial amount of evidence has been collected in the public management scholarship on the effect of the quality of leaders/CEOs/managers on organisational outcomes or results (e.g. Meier and O'Toole 2002). MacManus (1996) offers a comprehensive description of governing boards, including the form, name, size, partisanship and term of office. Avellandeda (2009) reveals that mayoral qualities, such as educational background and job-related expertise, have been associated with local public finance in 40 Colombian municipalities over the five years between 2000 and 2004. This research also shows that the positive influence of mayoral qualities on property tax collection and social spending per capita is moderated by external constraints (Avellandeda 2009).

Among various leadership qualities, we focus on gender representation in county and state leadership positions as an important factor in the politics of redistribution at the local level.<sup>2</sup> To address this link in the context of local government expenditures, we first use models to capture any differences that the gender variable may have caused in spending decisions on welfare. Subsequently, we take into account the economic and institutional factors that might affect the degree of influence of the gender variable. By including interaction terms in the model, this paper explores the mediating effect of the county leadership role in times of economic hardship and in counties with home rule. We test conditional hypotheses that the effect of female supervisors on county boards depends on the economic situation, measured by the unemployment rate at the county level every year, and the

<sup>2</sup> The term "local government" is often used as a generic term for governments below the state level, including counties, cities and special districts. In this paper, county governments are often referred to as local governments. When including cities, this paper uses the term "city or municipal governments", as municipal governments include cities, towns and townships while excluding counties.

institutional situation, measured by the charter status of counties as a time-invariant factor.

### Counties under fiscal stress

The service role of county governments has been significantly expanded in recent years (Benton 2002a; Streib et al. 2007). Since the state-local realignment proposals in 1991 and 1994–1995, counties have had more flexibility and fiscal incentives to determine budget decisions based on local needs.<sup>3</sup> With little difference from municipal governments, county governments practically function as a general-purpose government (Benton 2002a). In particular, California counties become a primary general government to the residents in regions that are not incorporated to cities. Despite the public support and recognition of counties as “full-service governments” (Menzel 1996; Benton 2002a, 196), however, scholars have devoted relatively little attention to county governments.<sup>4</sup>

Counties are required to play several roles in the state-local relationship. On the one hand, they operate as the administrative arm of the state government within federalism, and on the other, they serve as the direct providers of services that meet the needs of their residents (Ostrom and Ostrom 1988; Berman 1993; Berman and Salant 1996; Benton 2002a; Chapman 2003; Choi et al. 2010). As an important coordinating unit in the state-local relationship, counties with large jurisdictions take on complicated issues, such as environment, transportation and other urban services (Benton 2002b, 475).

Counties have a considerable amount of flexibility in applying mandates (Morgan and Kickham 1999; Sokolow and Detwiler 2001; Streib et al. 2007). In particular, urban counties have more options in choosing the specific range of services and programmes they provide (Morgan and Kickham 1999). Oakerson and Parks (1989, 290) admit that counties are a legal and political subdivision of state government, but the conception of “creature of the state” is “both empirically incorrect and normatively misleading”. Under fiscal federalism, there is a division of economic responsibilities between the federal, state and local governments (Stiglitz 2000, 728).

Although the division of responsibilities between state and local government is complicated, providing redistributive services has been one of the most important responsibilities of counties.

<sup>3</sup> The Realignment Proposal in 1991 transferred welfare programmes in the areas of mental health, social services and health from the state to the counties (Cohen 2001).

<sup>4</sup> With the tradition of a long-standing state-centred view, counties have often been described as “forgotten governments”, “dark continents”, “the jungle of the American political scene” or “ramshackle” (see Schneider and Park 1989; Menzel 1996).

For example, California's child welfare service programmes are provided by the Department of Social Services in the state government and by county agencies, including county welfare departments and county social service departments.<sup>5</sup> Current state law requires all counties to establish specialised organisational entities within county welfare departments that have sole responsibility for the operation of the child welfare services programmes (California Department of Finance 1997, 1). The state has discretion to determine the services to be provided and the eligibility criteria for receipt of services; however, counties have greater discretion in the structuring of programmes and the allocation of resources under the state's block-grant funding (California Department of Finance 1997).<sup>6</sup> The State Department does not have enough information and the counties have different criteria for determining cases in the programme. In a study of the Temporary Assistance for Needy Families programme, Riccucci and Meyers (2004) also posits that programme goals vary across counties even though policy goals are centralised at the state level. Thus, the success of local welfare services depends on whether the state obtains commitments from the county agencies.

Accordingly, counties, as a local service provider and the first contact with clients, have fairly high levels of discretion in implementing the service delivery systems in which the funds are spent (Pagano 1997; Dougherty et al. 2003; Krane et al. 2004). In other words, the local budget decisions on welfare will pretty much depend on the preferences of county officials in welfare service agencies. In particular, county officials on the boards exercise the executive, legislative and quasi-judicial authority of the county. In partnership with county staff, county supervisors are deeply involved in the delivery of services and programmes to the county region. They set priorities on budgets, supervise county officials and spend money on programmes aimed to meet the needs of county residents (California State Association of Counties 2009).

<sup>5</sup> Child Welfare Services (CWS) is the programme umbrella that encompasses most of the programmes that provide services for abused children and their families with the goal of maintaining or returning children to their homes. Four principal programme components are emergency response, family maintenance, family reunification and permanent placement. Funding for the CWS programme is from a combination of federal, State General Fund and county funding sources. The non-federal share of costs are split between the state (70 per cent) and counties (30 per cent).

<sup>6</sup> According to the report from the California Department of Finance 1997, xii, "... the State theoretically has primary responsibility for welfare programs such as Child Welfare Services, Foster Care, and Adoptions. However, this creates the illusion of a uniform statewide program design and administration. In fact, even though program policies for these programs are promulgated at the State level, there is little consistency among counties in the way those policies are implemented. In effect, the State has 58 different child welfare systems".

With decreasing revenue from other levels of government and increasing demand for urban services, counties are under fiscal pressure to balance their budgets (Pagano 1997; Dougherty et al. 2003). Local officials in counties must therefore choose which services they will provide and find more efficient and effective ways to provide these services (Cigler 1994; Benton 2002a, 204).<sup>7</sup> County governments have the flexibility to create or distribute surplus funds by changing expenditure categories (Pagano 1997; Morgan and Kickham 1999; Dougherty et al. 2003) and to resist unfunded state mandates (Berman and Salant 1996). Several studies suggest that state governments under fiscal pressure allow more discretion, transfer state and federal responsibilities, and impose unfunded mandates on local governments (Berman 1993; Krane et al. 2004; Sosin et al. 2010). Since October 2011, the California state government has expanded mandates, including those related to Child Welfare Services, Adult Protective Services, mental health, and drug and alcohol programmes to counties (Danielson and Mejia 2011).

## Hypotheses

### *Gender and welfare politics*

This study aims to test whether female officeholders at the state and local levels make a difference in local welfare expenditures. Women are playing an increasingly important role in local politics (Fox and Schuhmann 2000; Alozie and McNamara 2010). Compared to the studies of women in state legislatures and Congress, however, few works exist that attempt to analyse the impact of women in local office (MacManus and Bullock 1995).

The concept of representativeness or diversity has received more attention since traditional representative institutions like legislatures have been challenged in dealing with complex issues in communities.<sup>8</sup> The literature on representative bureaucracy offers a theoretical framework for this research. It assumes that the presence or increased presence of minorities in bureaucracy will have a substantive effect on policy choices or outputs. Minority bureaucrats can produce substantive benefits for their social groups directly through their own administrative behaviour and indirectly by influencing others' behaviours (Lim 2006).<sup>9</sup>

<sup>7</sup> "Unpaid State Bills Shift Burden to Local Governments", by Daniel C. Vock, 21 October 2010, Stateline, the Daily News Service of the Pew Center on the States.

<sup>8</sup> However, scholars warn against potential threats to the democratic principles and a flawed conceptual foundation (Thompson 1976; Lim 2006).

<sup>9</sup> There are direct sources of substantive effects, such as bureaucratic partiality, shared value and beliefs and empathic understanding, as well as indirect sources, such as colleague pressures, demand inducement and coproduction inducement (Lim 2006).

The evidence on gender difference in policy preference is quite strong. Women have a more distinctive focus on “women’s issues” as policy priorities, including policies that impact women, children, family, welfare and health, while focusing less on other issues, such as economic development (Burns and Schumaker 1987; Schumaker and Burns 1988; Saint-Germain 1989; Thomas 1991; Carroll 1994, 2003; Schlesinger and Heldman 2001; Dolan 2002; Keiser et al. 2002; Stivers 2002; Swers 2002; Wilkins 2006; Wilkins and Keiser 2006; Alozie and McNamara 2010). Several scholars argue that the gender gap is distinctive enough that it cannot be erased by organisational socialisation (Dolan 2002) and will make a substantial contribution rather than a symbolic one (Carroll 2003; Lim 2006; Park 2013).

An interesting question here is whether the difference in attitudes and priorities between men and women makes a real difference in policy outcomes (Dolan 2002; Andrews et al. 2005; Wilkins and Keiser 2006; Bradbury and Kellough 2007; Jacobson et al. 2010; Park 2013). Women and minorities in high-level positions are more likely to push for social welfare programmes (Keiser et al. 2002; Riccucci and Meyers 2004; Wilkins 2006; Bradbury and Kellough 2007), which might link demographic or passive representation to substantive or active representation in specific areas (Dolan 2002; Keiser et al. 2002; Riccucci and Meyers 2004; Meier and Nicholson-Crotty 2006; Wilkins and Keiser 2006).<sup>10</sup>

Studies have found that women leaders and officeholders bring up different policy issues and solutions by exercising a different leadership style from that of their male counterparts (Fox and Schuhmann 2000; Carroll 2003; Mandell and Pherwani 2003). For example, Selden (1997, 69) explained the variations in housing loan approval decisions by county supervisors with the concept of the “minority representative role”. She argues that the mediating effect of the minority representative role is more important than minority status itself. Furthermore, empirical research has identified the group-benefitting behaviour of women in legislative bodies (Saint-Germain 1989; Thomas 1991; Carroll 1994; Bratton and Haynie 1999; Saidel and Loscocco 2005). Women legislators are more likely to initiate bills on issues associated with women’s concerns. The legislative agendas of female state legislators display different policy priorities and pursue distinctive legislative politics as compared to male legislators.

Given the gendered characteristics of the welfare policy area, policy consequences are expected from an increased number of females represented in local governments and state legislature. We include gender

<sup>10</sup> Active representation occurs when behaviours of minority decision makers are consistent with the benefits of the minority group. There is still no consensus on whether passive representation leads to this “minority-benefitting administrative behavior” (Lim 2006, 198).



representation in the state legislature because of the dynamics of California's budget process and the state influence on local budget. We expect that there will be a positive relationship between the percentage of women officeholders in county boards and the state legislature and the portion of the county budget spent on welfare. Further, we examine whether or not the influence of gender representation on welfare spending has a linear relationship.

(H1A): County welfare spending will be positively associated with an increase in the number of women supervisors on county boards.

(H1B): County welfare spending will be positively associated with an increase in the percentage of women in state legislature leadership positions.

According to literature on representative bureaucracy, the presence of minorities, i.e. passive representation, does not guarantee policy choices for minorities (Ricci and Meyers 2004; Lim 2006; Bradbury and Kellough 2007); rather, active representation is needed. Active representation occurs when some specific conditions are met, such as critical mass of minority groups (Kanter 1977), policy discretion (Keiser et al. 2002) and institutional context and policy areas (Wilkins and Keiser 2006). This line of reasoning leads us to a detailed hypothesis that expects a moderating effect on local welfare decisions when county leadership includes women supervisors. We identify the economic and institutional conditions that expand the degree of discretion of local governments. We expect that an increase in the number of women officeholders has a substantive effect on local welfare choices in counties under economic pressures and/or in counties with home rule. Assuming that women officeholders may not always have the same attitude in dealing with fiscal challenges, we expect that there may be an interactive effect for the leadership and economy variables. Women officeholders may play the role of minority representative when the economy worsens, since state governments may allow more local discretion (Berman 1993; Krane et al. 2004; Sosin et al. 2010), and when policy choices benefitting women and minorities are at stake. Considering the gendered nature of social welfare, we expect that women officeholders will be more protective of welfare expenditures when they are threatened by economic and fiscal crises. As the degree of administrative discretion available to county boards is a key issue linking passive and active representation in this study, we also expect that institutional conditions increasing local discretion will positively moderate the effect of women supervisors on local welfare spending.

Conditional hypotheses have been constructed, suggesting that the effect of women supervisors on county boards may depend on economic and

institutional factors. More specifically, an increase in welfare expenditures is positively associated with an increase in the number of women on county boards when the county economy goes bad and/or counties have home rule. As we are interested in the effect of gender representation in county governments, we specify the following hypotheses:

(H2A): During an economic downturn, county welfare spending will be positively associated with an increase in the number of women supervisors on county boards.

(H2B): In county governments with home rule, county welfare spending will be positively associated with an increase in the number of women supervisors on county boards.

Three categories of control variables are discussed below: institutional factors, such as the introduction of Proposition 1A and chartered or general-law counties; political factors, such as the support for the democratic presidential nominee of each county and the strength of interest groups; and socio-economic factors, such as intergovernmental revenue, unemployment rates, the percentage of females in the population, the percentage of the population over 65 and under 14, per capita personal income and median income.

### *Institutional factors*

*County home rule.* Several studies have presented evidence that the government structure associated with a home rule charter affects the spending of county governments (Duncombe 1977; DeSantis and Renner 1994; Benton 2002a, 2002b; Choi et al. 2010). Efforts to modernise city and county governments are closely related to home rule, which involves greater autonomy in structural, functional and fiscal areas (Benton 2002b, 473). Often, cities and counties adopt charters because of structural reasons rather than functional ones (Sokolow and Detwiler 2001, 61). However, the effect of home rule seems more limited in counties than cities, because counties are more dependent on state control compared to cities (Sokolow and Detwiler 2001; Benton 2002b). Yet, we assume that charter status affects counties in the same way it does cities (Benton 2002b, 474). Chartered counties are expected to respond to the needs of citizens more effectively (Benton 2002b; Chapman 2003; Choi et al. 2010).<sup>11</sup>

Although we expect that an institutional condition that increases local discretion will be associated with positive moderating effects on local

<sup>11</sup> According to Benton (2002b, 474), “the granting of home rule charters makes it possible for counties to become full-service governments”.

welfare spending, the effect of county home rule on welfare spending may be complex. On one hand, counties with home rule have an incentive to focus more on services that match local needs. Average taxpayers in counties may choose to expand redistributive policies for social responsibility and long-term positive policy outcomes (Moane and Wallerstein 2001; Farmer 2011).<sup>12</sup> In this case, charter status may be positively associated with welfare expenditures. However, counties are also tempted to focus on generating revenue with economic development rather than social welfare (Peterson 1981; Benton 2002b; Choi et al. 2010; Farmer 2011). According to Peterson (1981), localities have distinct preferences for developmental policy areas rather than redistributive programmes, because they are afraid of losing residents and sources of revenue (Bahl et al. 2002; Stein 2003; Farmer 2011).

*Proposition 1A in 2004.* The approval of Proposition 1A in 2004 is one of the important institutional changes to affect local finance after Proposition 13. Enacted in 1978, Proposition 13 forbade local officials from setting their own property tax rates in order to protect homeowners. The direct effect of Proposition 13 was a sharp drop in property taxes, whereas the long-term effect of this measure was more complex than expected.<sup>13</sup> Proposition 13 fundamentally undermined the fiscal and political independence of local governments in California (Sokolow and Detwiler 2001, 63; Chapman 2003; Danielson and Mejia 2011; Mischynski and Mejia 2011). Correlatively, tensions between the state and local governments have been growing since the proposition (Chapman 2003; Mischynski and Mejia 2011).

As a response of local authorities, there have been several attempts to modify the state-local relationship and to limit the state's fiscal interference (Danielson and Mejia 2011; Mischynski and Mejia 2011). In November 2004, Proposition 1A was approved as a way to protect local government budgets from being transferred to the state government and to prohibit unfunded state mandates. As a consequence, local governments have more flexibility in managing local programmes, as this proposition limits state control over local property tax and local sales tax.

### *Political factors*

*Political ideology: Democratic votes in presidential elections.* As choices for redistributive services are closely related to state and local politics, it is essential to include political variables in the study of local finance. We expect that the political/ideological attitudes of county residents influence

<sup>12</sup> "Budget Cuts to Programs for Elderly May Cost Money Later", Pamela M. Prah, 28 July 2011, Stateline, the Daily News Service of the Pew Center on the States.

<sup>13</sup> Chapman (2003) investigates local government autonomy in terms of "initiative" and "immunity" after the shock of Proposition 13 in 1978.

local spending decisions on welfare. The influence of the ideological environment of the local community on bureaucratic output has been elaborated in the Kaufman's (1959) classic study. The political preferences of the public are reflected in the choices of the people who have power, according to pluralist theory (Stein 2003). Most elected county officials are willing to respond to local needs that reflect the political preference of county residents (Park 1996). As such, it is necessary to control for political/ideological preference when examining the factors that result in different spending levels in different policy areas (Park 1996; Fox and Schuhmann 2000).

It is widely acknowledged by scholars that Democrats are more favourable to redistributive policies than Republicans, while Republicans are more likely to increase spending on developmental policies (Fry and Winters 1970; Keiser 1997; Mead 1999; Alt and Lowery 2000; Nicholson-Crotty et al. 2006; Witco and Newmark 2009; Choi et al. 2010; Soss et al. 2011). Thus, we hypothesize that the more votes cast in a county for a presidential nominee from the Democratic Party, the more the county will spend on welfare. The political ideology of county residents is measured by counting the Democratic vote share in general presidential elections every four years.

*Strength of interest groups: number of non-profit organisations.* We consider interest groups as one of the political actors in local politics related to welfare. Interest groups are known to have a negative effect on the welfare of lower income populations, because these populations are not represented by interest groups (Schattschneider 1960; Fry and Winters 1970). Yet, under the competition for funding, interest groups with professional expertise may influence the behaviours of public officials in various ways (Fry and Winters 1970; Chapman 2003). We expect that interest groups having common interests in human services may contribute to increasing, or at least maintaining, the level of welfare spending in local governments.

### *Socio-economic factors*

*Intergovernmental revenue: state and federal aid.* Revenue from other levels of government accounts for a substantial share of county revenue (Duncombe 1977; Park 1996). Most of the social welfare programmes in California, such as California Work Opportunity and Responsibility to Kids and In-Home Supportive Services, are funded by the federal and state levels of government. Several important programmes, such as welfare, education and health, are supported by a mix of federal, state and local funding (Misczynski and Mejia 2011). State and local government provide different services with different funding sources, although there is no clear division in programmes and funding among the levels of government.

Considering the stimulative effect of funding (Courant et al. 1979; Benton 1992), we expect more local spending on the areas aided from the higher levels of government. Therefore, it is necessary to control intergovernmental transfers to identify factors affecting county spending on redistributive services (Park 1996; Witco and Newmark 2009, 219).

*Economic hardship: unemployment rate.* The relationship between economy and local public finance is well established. Early political scientists seem to agree that socio-economic variables account for local expenditures better than political variables do (Fabricant 1952; Dye 1966; Sharkansky and Hofferbert 1969). Since California counties have suffered from chronic economic recessions, the potential effect of this economic variable will be considered in the redistributive expenditures in California counties.<sup>14</sup> However, the effect of economy on local welfare services can be equivocal (Watkins-Hayes 2011). In times of economic hardship, local governments experience both a decrease in the state budget and a counties' own revenue sources (Berman 1993; Berman and Salant 1996; California State Association of Counties 2009) and an increase in local needs for welfare at the same time.

*Demographics: the ratio of female population, population over 65, population under 14, per capita personal income and median income.* In general, demographic characteristics reflect local demands for public services. The composition of the population can be a strong determinant of local choices on spending (Dye 1966; Witco and Newmark 2009). Counties may increase or decrease spending on certain programmes according to demands for the provision of the redistributive services (Benton 2002a). California counties vary greatly in size, economy, geography and demographics, which leads them to have different demands on welfare. In the end, we need to consider the characteristics of the communities in which the politics of redistribution occur (Fry and Winters 1970; Fox and Schuhmann 2000).

County choices for redistributive services may depend on community characteristics, such as population size and growth (Schneider and Park 1989; Park 1996; Choi et al. 2010; Farmer 2011), problem intensity (Fosset and Thompson 2005) and racial diversity (Fosset and Thompson 2005; Choi et al. 2010; Farmer 2011). We expect that there is a greater need for redistributive services in counties with a higher percentage of minority groups that may benefit from welfare programmes. Women, children and seniors are also included as target groups for services in California counties, as these counties already have various social service programmes assisting these groups. We also consider the wealth and income of county residents.

<sup>14</sup> California has experienced dramatic ups and downs in its economic vitality during the past few decades, referred to as the "California Roller Coaster" (Myers et al. 2012).

Counties with wealthy residents may spend more on growth-oriented, developmental services than redistributive, social services (Park 1996; Bahl et al. 2002). The wealth and income of county residents are captured by the per capita personal income and median income.

## Data and Methods

Our hypotheses are tested with panel data across 58 counties in California over ten years (2001–2010). Data are drawn from various sources, such as the Counties Annual Report, the Bureau of Labor Statistics, RAND California and the California Elections Data Archive (CEDA). Data and measures are shown in Table 1.

This paper uses expenditure data to measure the decisions or choices of county governments with regard to welfare services. The expenditure data is useful for capturing the trends of county choices in funding redistributive services (Benton 2002a). The dependent variable is the amount of county expenditures on public assistance, including welfare, social services, general relief and other public assistance programmes. Care of court wards and veteran services are included in this category according to the official classification. We tested the variable total welfare spending of the model specification for stationarity with the Levin-Lin-Chu test (time trend included) and found evidence against the null hypothesis of a unit root. We therefore concluded that total welfare spending is stationary. The changes in the total welfare spending of counties with a representative shape over ten years are presented in Figure 1. The trends show no consistent shape after inflation adjustment – they are either increasing or decreasing, showing smooth changes or changes with fluctuations.

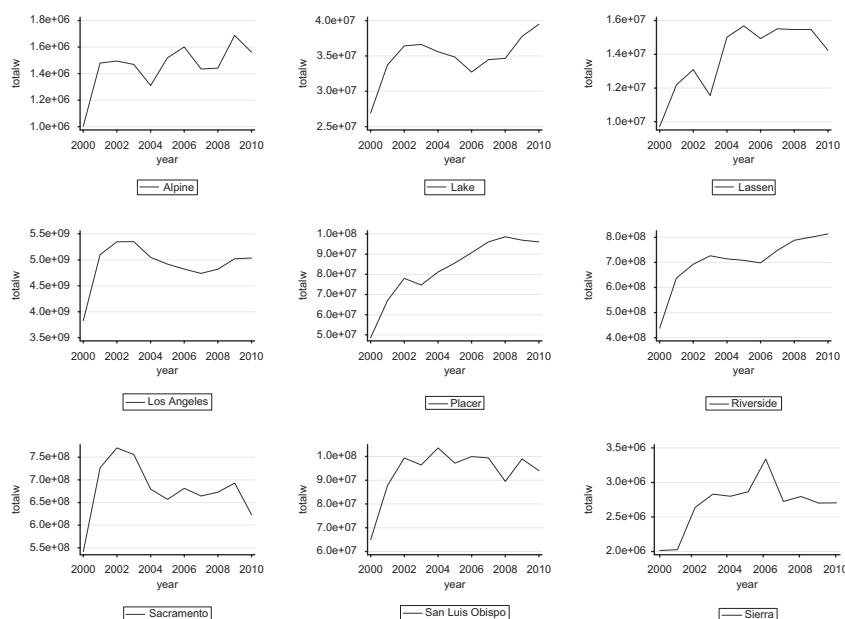
Our major independent variable is the gender representation in state and local government. For the causal inference based on the temporal precedence condition, all the independent variables except a charter dummy were lagged one year. Two measures of gender representation at different levels of government are (1) the number of women on the board of supervisors of each county and (2) the percentage of women officeholders in state legislature leadership positions. Two conditional hypotheses are tested using multiplicative interaction models (Brambor et al. 2006). The interaction variables were developed to further explore the county leadership role in chartered counties and in times of fiscal stress and its impact on policy choices related to welfare.

In counting the number of female supervisors-elect, we check the name of the successful candidates in CEDA and identify the supervisor's gender through a name gender guesser ([www.genderguesser.com](http://www.genderguesser.com)) and through search websites if the gender is not clear. California counties each have five

Table 1. Data and measures

Variables	Data	Source
Dependent variable	Total amount of public assistance expenditures (\$) (2000–2009)	RAND California County Finance Statistics and Counties Annual Report <a href="http://www.ca.rand.org">http://www.ca.rand.org</a> ; <a href="http://www.sco.ca.gov">http://www.sco.ca.gov</a>
Gender representation in the county level (L)	Number of women in the board of supervisors (2001–2010)	California Elections Data Archive <a href="http://www.csus.edu/calst/index.html">http://www.csus.edu/calst/index.html</a>
Gender representation in the state level (L)	Percentage of women in legislative leadership (2001–2010)	Center for American Women and Politics <a href="http://www.cawp.rutgers.edu">http://www.cawp.rutgers.edu</a>
Economic hardship (L)	Unemployment rate (%) (2001–2010)	Bureau of Labor Statistics <a href="http://www.bls.gov">http://www.bls.gov</a>
Intergovernmental aid (L)	Intergovernmental revenue (2001–2010)	RAND California County Finance Statistics and Counties Annual Report <a href="http://www.ca.rand.org">http://www.ca.rand.org</a> ; <a href="http://www.sco.ca.gov">http://www.sco.ca.gov</a>
Political ideology (L)	Democratic votes in Presidential General Elections (%) (2001–2010)	California State Archives <a href="http://www.sos.ca.gov">http://www.sos.ca.gov</a>
Strength of interest groups (L)(LN)	Number of non-profit organisations (ln) (2001–2010)	National Center for Charitable Statistics <a href="http://www.nccsdataweb.urban.org">http://www.nccsdataweb.urban.org</a>
County home rule	Charter status (0, 1)	California State Association of Counties <a href="http://www.counties.org">http://www.counties.org</a>
Proposition 1A (L)	Proposition 1A (0, 1: before = 0, after 2004 = 1)	
Demographics (L)	Percentage of females in total population (2001–2010)	Bureau of Labor Statistics <a href="http://www.bls.gov/cps/demographics.htm">http://www.bls.gov/cps/demographics.htm</a>
	Percentage of population of age over 65 (2001–2010)	Bureau of Labor Statistics <a href="http://www.bls.gov/cps/demographics.htm">http://www.bls.gov/cps/demographics.htm</a>
	Percentage of population of age under 14 (2001–2010)	Bureau of Labor Statistics <a href="http://www.bls.gov/cps/demographics.htm">http://www.bls.gov/cps/demographics.htm</a>
	Per capita income (\$) (2001–2010)	Bureau of Economic Analysis <a href="http://www.bea.gov">http://www.bea.gov</a>
	Median income (\$) (2001–2010)	United States Census Bureau <a href="http://www.census.gov/did/www/saipe/county.html">http://www.census.gov/did/www/saipe/county.html</a>

*Note:* All financial data are adjusted for inflation based on statewide Consumer Price Indexes for urban consumers using 2011 dollars. The variables with (L) are lagged one year.



**Figure 1** Changes of total welfare spending of nine counties with a representative shape by year.

supervisors with four-year staggered terms on a non-partisan ballot ([www.guidetogov.org](http://www.guidetogov.org)).<sup>15</sup> Two supervisors are elected in one general election and three supervisors in the next. The four-year staggered term of county supervisors posed a challenge in counting the number of women supervisors-elect in each county. To sort out the effect of incumbents, we used the number of successful female candidates rather than the proportion of women in county boards.

A state legislature is a legislative branch of the government that holds the principal law-making powers of the state ([www.legislature.ca.gov](http://www.legislature.ca.gov)). Every state has its own legislative body. As a measure of gender representation at the state level, we have used the percentage of women in leadership positions in the California state legislature from the Center for American Women and Politics. It not only reflects the distribution and penetration of

<sup>15</sup> California counties are regulated by Government Code Section 25,000, which requires each county to have a Board of Supervisors consisting of five members, except for San Francisco City and County with 11 members and one mayor. Considering the non-partisan election of county supervisors, we do not include the ideological alignment between the different levels of government in our empirical model.



women in higher leadership positions, but also shows more dynamic changes than the percentage of women in the state legislature, which has increased gradually and has now reached over 20 per cent (for more about the measures of representation, refer Greene et al. 2000). The leadership positions include Senate President and President Pro Tempore, Majority and Minority Leaders, Republican and Democratic Caucus Chairs, Secretary of the Senate, Speakers of the State Assembly including Pro Tempore, Majority Floor Leader, Assistant Majority Whip and Democratic Caucus Chairs, among others.

Intergovernmental revenue is drawn from the RAND California County Finance Statistics and Counties Annual Report. Federal and state aid for social assistance programmes and administration is included. The political/ideological attitude of each county's residents is measured by the proportion of Democratic votes in the presidential general elections in 2000, 2004 and 2008 in the California State Archives ([www.sos.ca.gov](http://www.sos.ca.gov)).

As a measure for the strength of interest groups, we include the number of registered 501(c)(3) non-profit organisations offering human services in each county.<sup>16</sup> Major categories include organisations offering child daycare, in-home assistance, family care, family services for adolescent parents, single-parent services, family-violence shelters, pregnancy centres and emergency assistance, as well as specific organisations, such as senior centres, developmental disability centres, women's centres, ethnic and immigrant centres, homeless centres, blind and visually impaired centres, deaf and hearing-impaired centres and LGBT centres. Demographic variables are from the Bureau of Labor Statistics and United States Census Bureau.

## Results and Discussion

Tables 2 and 3 provide descriptive statistics and pairwise correlations among the variables.

To examine the robustness of the results shown in Tables 4 and 5, we have re-estimated the analysis using sensitivity tests. In addition, a number of diagnostics, including the variance inflation factor (VIF) test for multicollinearity, confirm that the assessments in Tables 4 and 5 legitimately judge the influence of these factors.<sup>17</sup> In the context of this study,

<sup>16</sup> Although some of the organisations in the category of the 501(c)(4) are closer to interest advocacy groups, there are concerns about misleading results with this category, because it contains various kinds of organisations that cannot be considered public interest groups, such as the Rotary Club (Boris and Steuerle 2006, 70).

<sup>17</sup> In the linear fixed effect models, the highest VIF is 5.85 on the variable of the percentage of population under 14 and the mean VIF is 3.04. In the non-linear fixed effect models, the highest VIF is 9.47 on the lagged variable of the number of women supervisors and the mean VIF is 3.87. A VIF of more than ten is regarded as serious multicollinearity (Kutner et al. 2004, 409).

Table 2. Summary statistics

	Obs	Mean	SD	Minimum	Maximum
Total welfare expenditures (totalw)	627	2.56e + 08	6.70e + 08	1,003,275	5.35e + 09
Number of women on county boards (wbos)	627	0.6379585	0.7313349	0	3
Percentage of women in state legislature leadership positions (wsllp)	627	20.08	15.39409	0	42.9
Intergovernmental revenue (interg)	570	4.92e + 08	1.17e + 09	4,925,563	9.31e + 09
Unemployment rate (unemp)	626	8.318051	3.679558	2.8	27.6
Per capita personal income (pci)	513	39,379.21	12,164.61	23,401	99,517
Median income (median)	627	65,181.5	16,644.16	37,350	129,235
Charter status	627	0.2280702	0.4199231	0	1
Proposition 1A	627	0.6363636	0.4814298	0	1
Number of non-profits (ln) (lnnon)	621	3.651162	1.644362	0	7.985825
Percentage of Democratic votes (demv)	627	46.99314	12.59775	23.1	78.8
Percentage of female population (female)	627	49.27343	2.395282	35.16	52.1
Percentage of population over age 65 (over 65)	627	12.91329	3.500236	7.28	26.83
Percentage of population under age 14 (under)	627	20.50078	3.726759	12.98	28.74

Table 3. Pairwise correlation among continuous variables

	totalw	wbos	wsllp	interg	unemp	pai	median	lnnon	demv	female	over	under
totalw	1.000											
wbos	0.0412	1.0000										
wsllp	0.0151	0.0085	1.0000									
interg	0.9963*	0.0436	-0.0074	1.0000								
unemp	-0.0912	-0.1643*	0.2540*	-0.1191	1.0000							
pai	0.0939	0.1601*	0.0927	0.1189	-0.4658*	1.0000						
median	0.1256	0.1600*	0.0861	0.1507*	-0.4009*	0.8486*	1.0000					
lnnon	0.5693*	0.1063	0.0542	0.5980*	-0.2635*	0.4073*	0.5055*	1.0000				
demv	0.2642*	0.1618*	0.1769*	0.2648*	-0.0954*	0.6360*	0.6616*	0.5031*	1.0000			
female	0.1353*	0.1375*	-0.0175	0.1455*	-0.1045	0.2275*	0.1749*	0.3401*	0.2362*	1.0000		
Over 65	-0.2481*	0.0507	0.0592	-0.2598*	-0.0092	-0.0035	-0.2077*	-0.3634*	-0.2419*	0.1649*	1.0000	
under	0.1906*	-0.0887	-0.1425*	0.1970*	0.2189*	-0.2325*	-0.1140*	0.2694*	-0.0437	0.2039*	-0.7181*	1.0000

Note: Coefficients with asterisks are statistically significant at Bonferroni-adjusted 0.05 levels.

Table 4. The linear fixed effect models

	Fixed Effect Model (Linear) Coefficients (SE)	Interaction Model (Economic Variance) Coefficients (SE)	Interaction Model (Institutional Variance) Coefficients (SE)
Total Expenditure on Welfare			
Number of women on boards of supervisors in each county (L1)	2.73e + 05 (1.54e + 06)	1.93e + 05 (1.52e + 06)	- 2.68e + 05 (1.62e + 06)
Percentage of women in state legislature leadership positions (L1)	2.57e + 05** (1.19e + 05)	2.38e + 05* (1.24e + 05)	2.30e + 05** (1.08e + 05)
Intergovernmental revenue (federal + state) (L1)	0.205*** (0.007)	0.202*** (0.007)	0.204*** (0.007)
Unemployment rate in county level (L1)	- 1.15e + 06 (1.15e + 06)	- 1.12e + 06 (1.04e + 06)	- 1.13e + 06 (1.04e + 06)
Per capita personal income (L1)	49.952 (848.098)	108.057 (860.031)	258.840 (936.717)
Median income (L1)	705.976 (1,182.538)	747.539 (1,186.224)	789.660 (1,219.113)
Charter status †			
Interaction (charter × number of women on county boards)		6.23e + 06 (3.78e + 06)	
Interaction (unemployment rate × number of women on county boards)			4.07e + 05* (2.32e + 05)
Proposition 1A (L1)	- 1.99e + 07 (1.67e + 07)	- 2.02e + 07 (1.68e + 07)	- 1.98e + 07 (1.67e + 07)
Number of non-profit organisations in human services (L1, LN)	2.53e + 06 (3.25e + 06)	2.25e + 06 (3.11e + 06)	3.28e + 06 (3.37e + 06)
Percentage of Democratic votes in presidential elections (L1)	1.20e + 06** (4.88e + 05)	1.21e + 06** (4.91e + 05)	1.16e + 06** (4.75e + 05)

Table 4. *Continued*

	Fixed Effect Model (Linear) Coefficients (SE)	Interaction Model (Economic Variance) Coefficients (SE)	Interaction Model (Institutional Variance) Coefficients (SE)
Total Expenditure on Welfare			
Percentage of females in total population (L1)	2.01e + 05 (7.74e + 06)	4.31e + 05 (7.59e + 06)	2.77e + 05 (7.66e + 06)
Percentage of population over 65 (L1)	- 6.45e + 05 (1.95e + 06)	- 8.09e + 05 (1.97e + 06)	- 1.44e + 06 (2.24e + 06)
Percentage of population under 14 (L1)	- 1.52e + 06 (3.02e + 06)	- 1.75e + 06 (3.03e + 06)	- 1.25e + 06 (3.01e + 06)
Constant	1.00e + 08 (3.74e + 08)	9.16e + 07 (3.65e + 08)	8.56e + 07 (3.75e + 08)
sigma_u	4.411e + 08	4.433e + 08	4.406e + 08
sigma_e	29,974,900	29,940,012	29,961,378
$\rho$ (fraction of variance due to u_i)	0.99540273	0.99545855	0.99539654
Number of obs	507	507	507
Number of groups	57	57	57
R <sup>2</sup>			
Within	0.2949	0.2982	0.2987
Between	0.9764	0.9734	0.9717
Overall	0.9728	0.9698	0.9682
F-value	F(12,56) = 260.52	F(13,56) = 243.62	F(13,56) = 219.07
Prob > F	0.0000	0.0000	0.0000

*Note:* † Charter variable is included in the model as a constitutional term of the interaction models but omitted because of collinearity. The results are not affected by the inclusion.

L1, variables that lagged one year; LN, variables with natural logarithm.

\*\*\*p < 0.01, \*\*p < 0.05, \*p < 0.1, SE noted in parentheses are adjusted for 57 clusters in id (county).

Table 5. The non-linear fixed effect models

	Fixed Effect Model (Non-Linear) Coefficients (SE)	Interaction Model (Charter) Coefficients (SE)	Interaction Model (Economy) Coefficients (SE)
Total Expenditure on Welfare			
Number of women on boards of supervisors in each county (L1)	- 2.07e + 05 (1.54e + 06)	- 8.90e + 04 (1.60e + 06)	- 2.71e + 05 (1.57e + 06)
[Number of women on boards of supervisors in each county (L1)] <sup>2</sup>	1.65e + 06* (9.26e + 05)	1.06e + 06* (9.30e + 05)	2.39e + 05 (1.50e + 06)
Percentage of women in state legislature leadership positions (L1)	2.41e + 05** (1.12e + 05)	2.33e + 05** (1.18e + 05)	2.29e + 05** (1.04e + 05)
[Percentage of women in state legislature leadership positions (L1)] <sup>2</sup>	355.988 (1328.270)	383.198 (1319.594)	345.096 (1314.985)
Intergovernmental revenue (federal + state) (L1)	0.204*** (0.007)	0.202*** (0.007)	0.203*** (0.007)
Unemployment rate in county level (L1)	- 1.07e + 06 (-1.07e + 06)	- 1.07e + 06 (-1.07e + 06)	- 1.11e + 06 (1.09e + 06)
Per capita personal income (L1)	182.182 (918.347)	163.437 (910.028)	231.711 (944.516)
Median income (L1)	799.391 (1230.884)	799.899 (1232.206)	802.924 (1231.697)
Charter status †			
Interaction (charter × number of women on county boards)		4.36e + 06 (4.11e + 06)	
Interaction (unemployment rate × number of women on county boards)			3.63e + 05 (3.88e + 05)
Proposition 1A (L1)	- 2.05e + 07 (1.69e + 07)	- 2.05e + 07 (1.70e + 07)	- 1.99e + 07 (1.65e + 07)
Number of non-profit organisations in human services (L1, LN)	3.91e + 06 (3.57e + 06)	3.22e + 06 (3.23e + 06)	3.39e + 06 (3.76e + 06)
Percentage of Democratic votes in presidential elections (L1)	1.23e + 06** (5.32e + 05)	1.24e + 06** (5.32e + 05)	1.18e + 06** (5.12e + 05)

Table 5. *Continued*

	Fixed Effect Model (Non-Linear) Coefficients (SE)	Interaction Model (Charter) Coefficients (SE)	Interaction Model (Economy) Coefficients (SE)
Total Expenditure on Welfare			
Percentage of females in total population (L1)	-2.20e+05 (7.26e+06)	1.46e+05 (7.31e+06)	3.19e+05 (7.37e+06)
Percentage of population over 65 (L1)	-9.84e+05 (2.09e+06)	-9.74e+05 (2.05e+06)	-1.39e+06 (2.17e+06)
Percentage of population under 14 (L1)	-1.27e+06 (3.04e+06)	-1.44e+06 (3.03e+06)	-1.10e+06 (3.01e+06)
Constant	1.01e+08 (3.48e+08)	9.02e+07 (3.46e+08)	7.84e+07 (3.56e+08)
sigma_u	4.404e+08	4.422e+08	4.406e+08
sigma_e	29,979,207	29,987,710	30,029,416
$\rho$ (fraction of variance due to u_i)	0.9953870	0.99542225	0.99537651
Number of obs	507	507	507
Number of groups	57	57	57
R <sup>2</sup>			
Within	0.2979	0.2991	0.2988
Between	0.9712	0.9710	0.9715
Overall	0.9678	0.9675	0.9680
F-value	F(14,56)=230.70	F(15,56)=224.78	F(15,56)=210.36
Prob > F	0.0000	0.0000	0.0000

Note: † Charter variable is included in the model as a constitutive term of the interaction models but omitted because of collinearity. The results are not affected by the inclusion.

L1, variables that lagged one year; LN, variables with natural logarithm.

\*\*\*p < 0.01, \*\*p < 0.05, \*p < 0.1, SE noted in parentheses are adjusted for 57 clusters in id (county).

however, the city and county of San Francisco has been excluded as an outlier from the analysis, most importantly with regard to its unique status as the only consolidated city-county in California. The number of members on the San Francisco Board of Supervisors is 11, while all other counties have five members on their boards. Given the available data, the exclusion of San Francisco does not affect the results associated with gender representation in the present study.

Panel data can be estimated using several different models according to the assumption of the characteristics of residuals. Based on theoretical reasons and statistical tests, such as the *F*-test and Hausman test (Hsiao 2007), the fixed effect model turned out to be an appropriate method to estimate the relative impacts of the independent variables in the equation. A choice of either fixed or random effects estimation can be justified in the theoretical and technical dimensions. However, econometricians now argue that the Hausman test does not help in deciding between fixed and random effects. Instead, more weight is given to the size of the data set, the extent of variability within units and the level of correlation between and within the covariates and units (Clark and Linzer 2012). The modelling of random effects usually follows strong assumptions, such as a normal distribution and independence of residuals of explanatory variables (without omitted variables), while fixed effects estimators do not rely on as strong assumptions as the random effects model and therefore are not likely to fail. In addition, fixed effects estimation is desired for the purpose of investigating “the effects that are in the sample”, while the alternative is prescribed for that of identifying “the population characteristics” based on a supposedly random sample (Hsiao 2007). Therefore, the fixed effects approach is preferable for this work, based not only on the Hausman test, but also on the theoretical considerations.

The levels of significance used in this paper are 10 per cent, 5 per cent and 1 per cent. Although the conventional significance level is 5 per cent, the limit for statistical significance was set at 10 per cent ( $p = 0.10$ ) in this paper. Although reducing the alpha level is one way to protect against Type I error, it also increases the chance of a Type II error. The total number of observations is 507, as we lost ten by excluding one panel and the city and county of San Francisco and another 58 when creating interaction or lagged variables. The remaining five missing values are missing from the original data set. Robust SE were clustered by county. The relative impact of the independent variables between the models with and without an interaction term creates little change in sign, strength or statistical significance.

The fixed effects models with and without interaction terms assuming linear and non-linear relationships are tested in this study. From the models

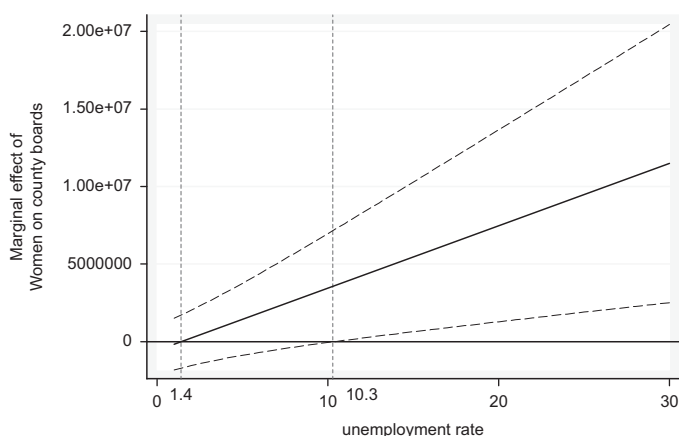


accounting for a linear relationship, there are some noteworthy aspects to the findings in Tables 4 and 5. First, gender representation in state legislature leadership positions had a statistically significant positive effect on the amount of total welfare spending in California counties. This result seems particularly noteworthy in light of the fact that there is a positive relationship between women and welfare politics. The variable turns out to be consistently significant across all the models in the study. However, the variable of the number of women on boards of supervisors in each county was not significant in the linear fixed effect models.

Also noteworthy is the fact that the interaction term for the number of women supervisors and county unemployment rate reached the significance level with a positive sign at the 90 per cent confidence interval (with *t*-value of 1.76). Although the inclusion of interaction terms requires that the coefficients be interpreted carefully, this suggests that women supervisors are willing to spend more on welfare when a county faces financial stress. Since the unemployment rate itself was not significant, this also indicates that macro-economic variables moderated by the county leadership role affect county welfare expenditures.

We can gain a better understanding by being sensitive to the changes in the marginal effect of the variable. Figure 2 presents the changes in the marginal effect of the number of women on county boards on total welfare expenditures. The solid line indicates the marginal effect of the number of women on county boards on unemployment rates, while the dashed line shows the 90 per cent confidence interval around the solid line. Any particular point on the solid line is  $\frac{\partial \text{Total welfare}}{\partial \text{Women supervisors}} = \beta_1 + \beta_3 \text{ Unemployment rate}$  (Bramber et al. 2006, 75). When the county unemployment rate is over 1.4 per cent, the percentage of women supervisors on county boards are likely to be positively associated with welfare spending.

The dashed lines marking the upper and lower bounds of the 90 per cent confidence interval around the estimate are both above the zero line at 10.3 per cent. This implies that the marginal effect of the number of women supervisors becomes positively significant when the county unemployment rate exceeds 10.3 per cent. Therefore, when the economy sufficiently worsens, the number of county board positions held by women has a statistically significant positive effect on welfare spending, and the positive effect increases as the number increases. Other than the importance of the county leadership role in expanding welfare services, this finding suggests that gender representation on county boards matters in times of economic hardship. Contrary to the findings from other studies, which show that institutional factors including charter status have an impact on changes in county expenditures (Choi et al. 2010; Farmer 2011), however, both the



**Figure 2** The marginal effect of gender representation in county level on total welfare spending.

*Note:* The dashed line shows the 90 per cent confidence interval around the solid line.

interaction term and the dummy variable for charter status were not statistically significant.<sup>18</sup>

Second, another variable revealed to have a statistically significant influence on total welfare spending is the political preference of county residents. The importance of political factors in the politics of redistribution cannot be overstated in the study of expenditures and policy outcomes (Fry and Winters 1970, 508; Fosset and Thompson 2005). The effect of a political variable was not overshadowed by socio-economic variables, a finding that is contrary to some previous studies (see, e.g. Sharkansky and Hofferbert 1969, 510). Interestingly, the residents' political/ideological attitude measured by the percentage of Democratic votes in presidential elections had a strong positive effect on welfare spending in each county. This relationship clearly reveals how county residents' political preferences affect choices on county welfare and confirms much of what we expected, namely that the Democratic Party stimulates welfare spending.

Yet, the variable representing the strength of interest groups was not significantly related to local welfare expenditures once the other variables were controlled, although the sign and the correlation coefficient were consistent with expectations derived from our theory. Some possible explanations include the fact that it is quite demanding to measure interest group strength and its impact on spending choices. Although they

<sup>18</sup> The effect of the dummy variable for county home rule was estimated by employing the fixed effect model using group means.

are assumed to be interest groups, non-profit organisations classified as 501 (c)(3)s might not function as expected. Organisations in this category are permitted to lobby to an extent, but they are more committed to charitable contributions than political purposes (Boris and Steuerle 2006, 70). Another explanation may have to do with government-non-profit relations. Most of the social welfare programmes after the Reagan administration were delivered directly to consumers and not through non-profits or producers of services (Grønbjerg and Salamon 2003, 454).

Third, consistent with prior studies, county expenditures in redistributive policy areas were determined primarily by intergovernmental revenue from the federal and state governments (Park 1996; Bahl et al. 2002; Farmer 2011). Although our study could not ascertain the differential effect of state and federal financial support, estimates suggest that a one-dollar increase in intergovernmental revenue leads to an increase of about 20 cents in county spending on public assistance.<sup>19</sup> Accordingly, the decision to shrink welfare in state government will have a direct impact on county governments.<sup>20</sup> Because state governments tend to spend less on welfare programmes and more on economic development during economic recessions (Witco and Newmark 2009, 219), local governments have to solve the dilemma of providing more services with less money. In sum, the state redistributive decisions are critical in determining the level of welfare spending in counties, regardless of the local discretion in choosing the subcategories of services.

Finally, after controlling for economic and political variables, demographic characteristics had no discernible impact on redistributive choices. Based on this finding, the percentage of females in the population, population over 65, population under 14, median income and per capita personal income do not appear to be associated with significantly higher welfare expenditures. This seems contrary to the findings of previous research (Park 1996; Farmer 2011), but is consistent with Peterson's (1981) argument that social service expenditures are not related to indicators of

<sup>19</sup> Although it is beyond the scope of this article, the extent to which state and federal aid impacts local expenditures is not the same. Federal aid has a more indirect effect on local redistributive services, because local officials regard them as outside or pass-through money and use the money as if it were its own source revenue (Stein 1990; Benton 1992; Farmer 2011). Owing to the dependence of counties on state aid and the strict legal obligations in the redistributive area, state aid has a more direct stimulative effect on county welfare spending (Stein 1990; Benton 1992; Park 1996; Farmer 2011).

<sup>20</sup> Economic hardship may affect the state's incentive to cut welfare, but the relationship would be beyond the scope of the present discussion. The result does not support direct causal relations between them, and the correlation coefficient between the unemployment rate and intergovernmental revenue was not significant ( $-0.1191$ ).

local demands in the community. This could, in part, be due to the fact that the political/ideology variable reflects much of the socio-economic status of county residents. Other plausible explanations might include the overwhelming influence of the state government in the politics of redistribution.

To explore the potential quadratic effects of gender representation, the same series of regressions, including the squared term of both the number of female county supervisors and the percentage of women in the state legislature, are presented in Table 5. In the non-linear fixed effect models, the estimates of the squared term of the number of women county supervisors turned out to be statistically significant. Although the findings are not particularly robust or strong, it suggests a potentially positive non-linear effect of gender representation in the county level on welfare spending. The inclusion of the squared variables did not change the result of the regression substantially. The additional control variables follow the same pattern.

## Conclusion

This paper has examined the politics of redistribution in local government. With hard data from 58 counties over a period of ten years, this study attempts to present explanations of the redistributive choices of California counties under chronic financial stress. Among the various leadership qualities, this study includes gender in county and state leadership positions as an important determinant of local welfare spending.

The findings from the panel data analysis leads us to conclude that the social welfare services in California counties are primarily determined by the state's leadership, financial support from other governments and the political/ideological preferences of county residents. Welfare spending by county governments is likely to be influenced by various combinations of these factors. Although other demographic variables were not significant, the results presented here provide supporting evidence of the effect county residents have on redistributive choices. Counties with more supporters of Democratic presidential candidates are likely to spend more on welfare services.

The empirical evidence on the effect of gender representation in the leadership positions in state and county government follows the general pattern predicted by the model. Gender representation in the local government and state legislature had a different effect on policy choices related to welfare. The increase in the percentage of women in state legislature leadership positions had a statistically significant positive effect on local welfare spending, while the increase in the number of women on county boards had no significant effect. Interestingly, however, the effect of gender representation at the county level may have a quadratic relationship with

welfare spending in the non-linear models. In addition, the effect of gender in county leadership seems contingent upon the economic situation. An increase in the number of women on county boards has a slight but significantly positive association with an increase in local welfare expenditures when the county economy goes bad. Put differently, the effect of economic hardship on social welfare varies across California counties, and this difference can be partly explained by gender representation on county boards.

We expect this work to give us insight into the critical problem of financial resource allocation by local governments. We have attempted to understand the impact of gender on local welfare spending and conclude that gender is a crucial variable in the study of welfare politics, especially when interacting with the economic environment. The findings of the study support the relationship between women and the politics of redistribution at the local level and provide evidence for the literature on representative bureaucracy, especially as related to the link between passive and substantive representation. This study also offers implications for leadership at the county level. Given the substantial level of discretion county authorities have, exploring and examining how leadership affects policy choices at the county level is essential to understanding the dynamics of state-local relationships. This study contributes to existing explanations of local government variations on providing and delivering social welfare services. The potential impact of gender representation on other policy areas vulnerable to economic and fiscal crises deserves more attention. Considering the need for longitudinal research on this issue, this research has the potential to contribute to the scholarship on diversity and representation in the public sector, as well as bring to attention implications for American local governments.

Despite its contribution, caution should be taken in generalising the findings from this study. The politics of redistribution may be different in other contexts, such as for cities with secondary responsibilities for welfare under competitive pressure and for counties in other states with their own historical backgrounds. There might be other important factors that influence the scope of local service provision, such as political culture (Benton 2002a, 197) and electoral competition (Barrilleaux et al. 2002). An important caveat of the analysis is that it does not directly tackle endogeneity issues among the variables. Gender representation in leadership positions cannot be achieved in a short period of time, while the ways in which gender representation affect welfare spending can be complex and have a long-term impact. Although we attempt to ensure temporal precedence by lagging independent variables, the empirical models of this study could not rule out the possibility that the gender representation may itself be a result of other processes. Future research should assess this relationship.

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